

FIG. 1 is a block diagram of a system for component matching.

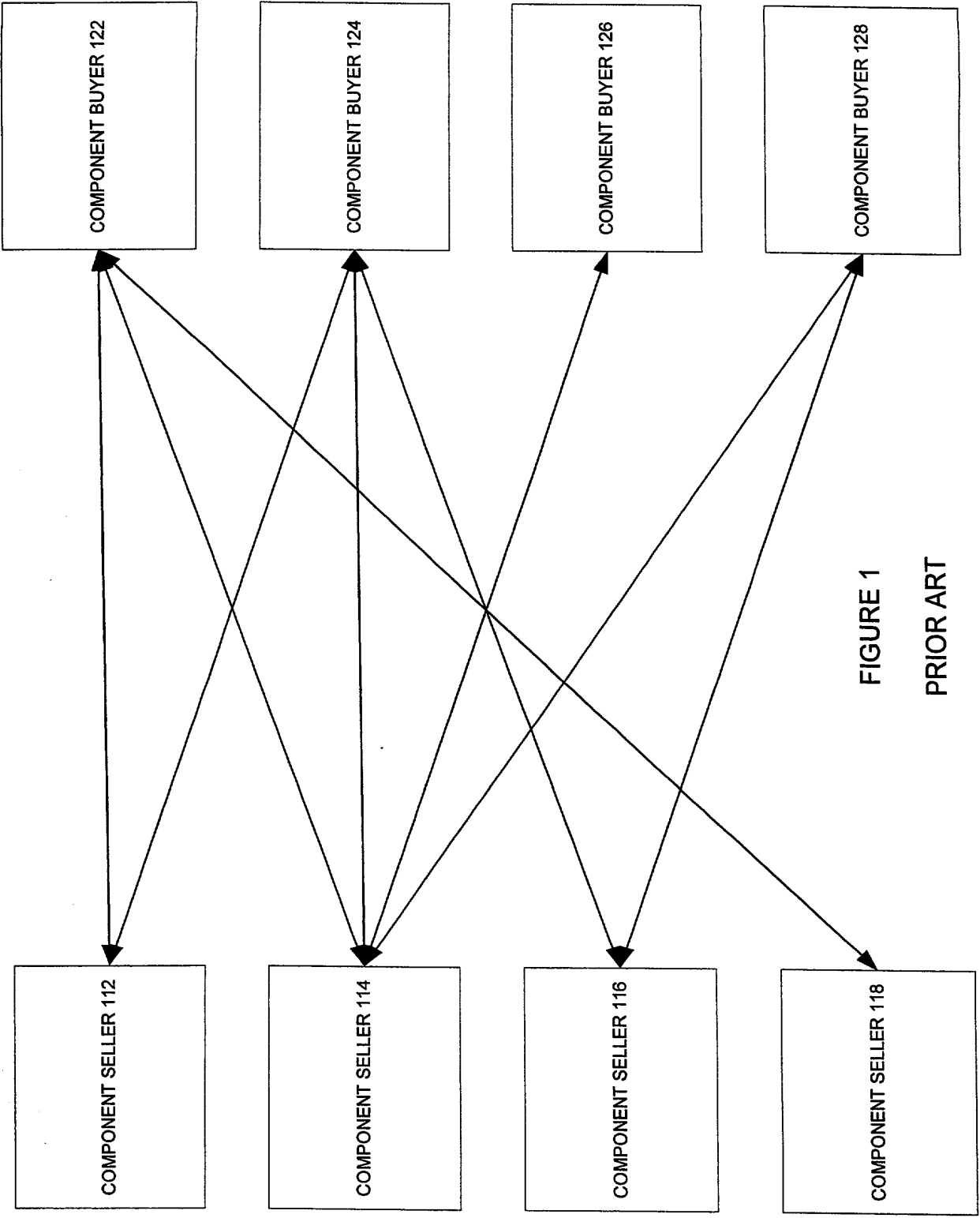


FIGURE 1

PRIOR ART

FIG. 2 is a block diagram of a component exchange system 200. The system 200 includes a component exchange 230, a plurality of component sellers 210, and a plurality of component buyers 220. The component exchange 230 is connected to each of the component sellers 210 and each of the component buyers 220. The component exchange 230 is configured to receive components from the component sellers 210 and to provide components to the component buyers 220.

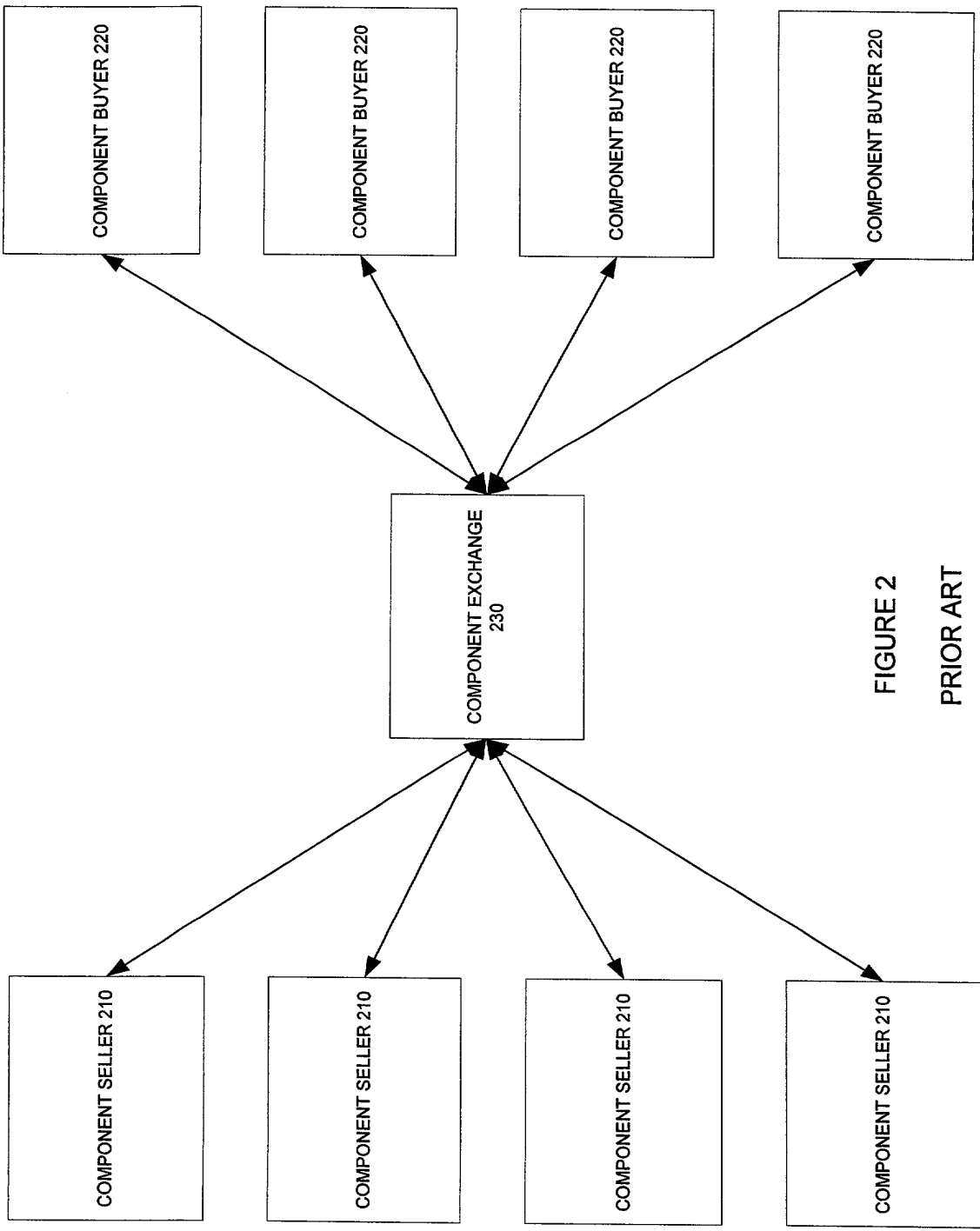


FIGURE 2
PRIOR ART

FIG. 3 is a block diagram of a component exchange system 230. The system 230 includes an input/output interface 310, a processor 330, a component market memory 320, and an operational memory 340. The input/output interface 310 is connected to the processor 330. The processor 330 includes a buy/sell data comparator 332 and a request data analyzer 334. The component market memory 320 and the operational memory 340 are connected to the processor 330 via a bus 350.

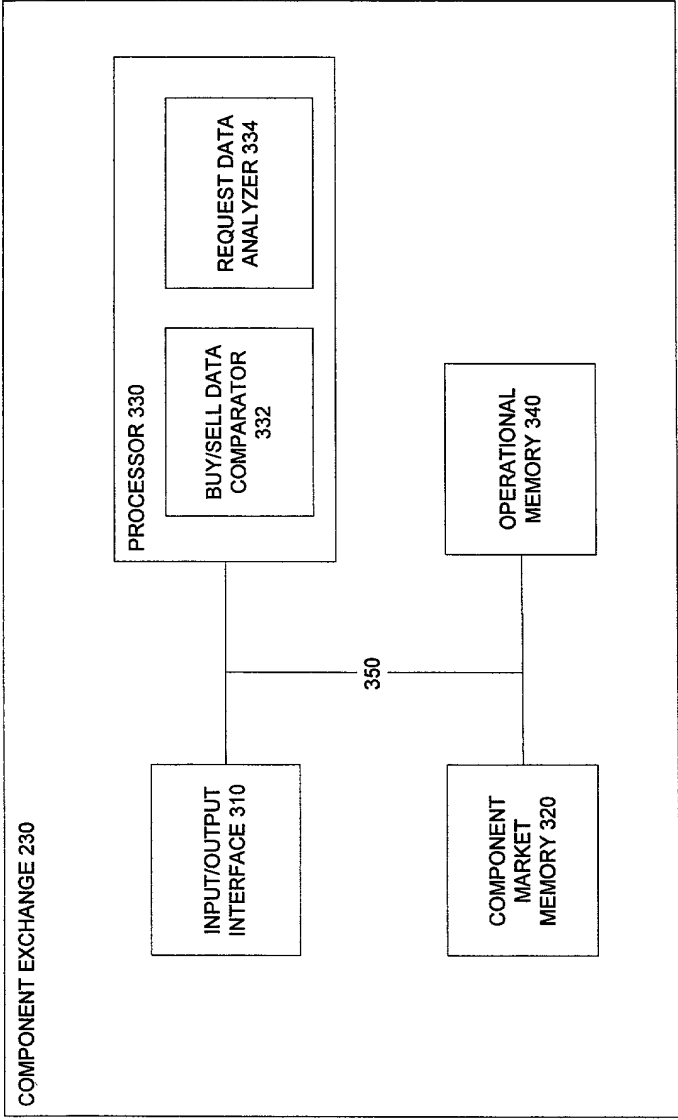


FIGURE 3

PRIOR ART

FIG. 4 is a block diagram of a component exchange system 400. The system 400 includes an input/output interface 410, a component market memory 420, a processor 430, and operational memory 440. The input/output interface 410 is connected to the component market memory 420 via a bus 450. The component market memory 420 includes a trade archive data structure 422, a trade partner data structure 424, a master parts reference data structure 426, and a master cross reference data structure 428. The processor 430 includes a master cross reference module 436, a master parts reference module 438, a buy/sell data comparator 432, and a request data analyzer 434. The processor 430 is connected to the component market memory 420 via the bus 450. The operational memory 440 is connected to the processor 430 via the bus 450.

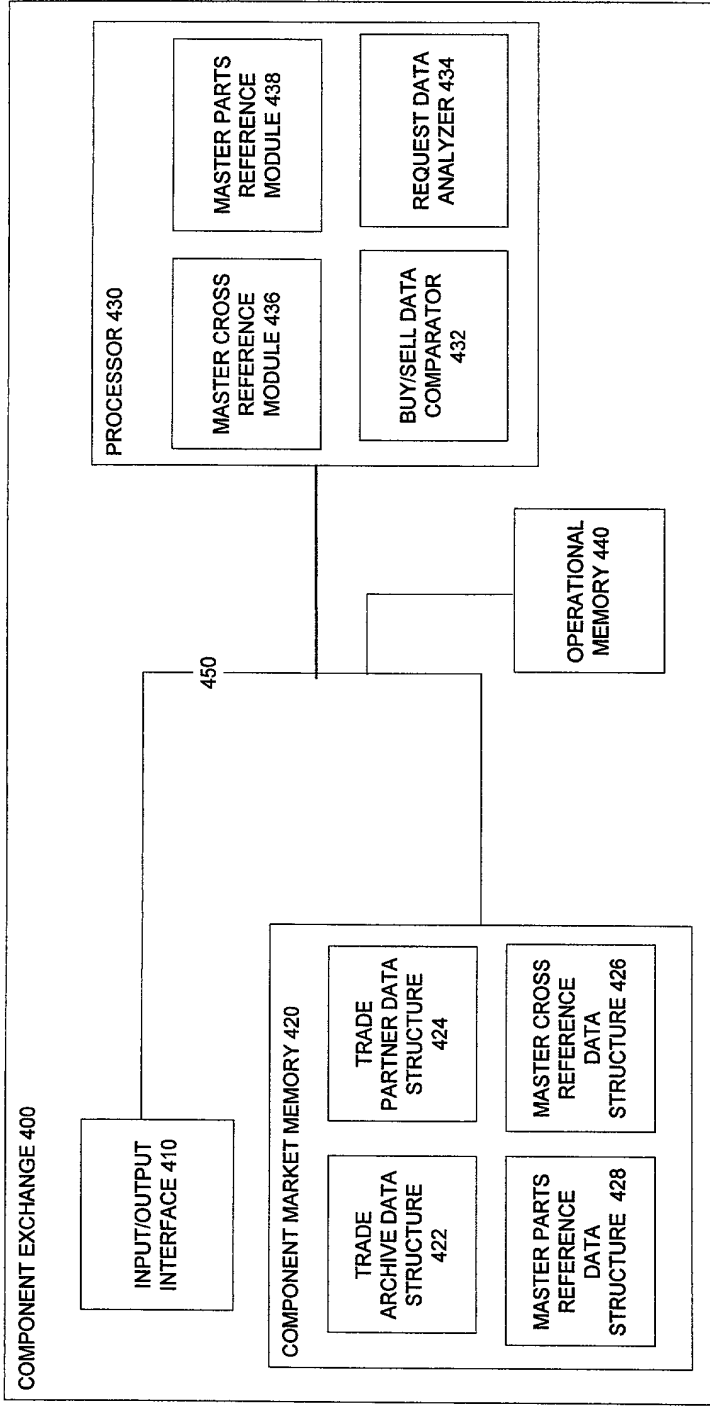


FIGURE 4

CB	IPN	MPN
A	A1	M1, M2, M3
B	B2	M2, M4, M5
C	C3	M4, M6, M7

$$M2 = M1 = M3$$

$$M2 = M4 = M5$$

$$+ \quad \underline{M4 = M6 = M7}$$

Therefore,

$$M1 = M3 = M2 = M5 = M4 = M6 = M7$$

FIGURE 5

CB	IPN	MPN
X	X1	M11, M12, M13
Y	Y2	M12, M14, M15
Z	Z3	M14, M16, M17

$$M12 = M11 = M13 \quad \text{Relationship X}$$

$$M12 = M14 = M15 \quad \text{Relationship Y}$$

$$+ \quad \underline{M14 = M16 = M17} \quad \text{Relationship Z}$$

Therefore,

$$M11 = M13 = M12 = M15 = M14 = M16 = M17$$

But.....

X Disapproves M12

Thus,

$$M12 \neq M11 = M13 = M14 = M15 = M16 = M17$$

FIGURE 6

FIGURE 7

730

CB CODE 705	LINKING CODE 710	CB IPN 715	MANUFACTURER 720	MPN 725	CB A	CB B	CB C	CB D	IECs 735
A	A1	123456789	BOB	BR456789	A	A	I	I	BR456789
A	A1	123456789	COC	CR234567	A	I	I	I	CR234567
A	A1	123456789	DOD	LB123456	A	I	I	I	LB123456
A	A1	123456789	ROR	MB987654	A	I	I	I	MB987654
B	A2	654321	YOB	MT4C4M4A1D	I	A	I	I	MT4C4M4A1D
B	A2	654321	TRE	MSM5117400A	I	A	A	I	MSM5117400A
B	A2	654321	BOB	BR456789	I	A	I	I	MSM5117400DJ6
B	A2	654321	ERT	MSM5117400D	I	I	A	I	CR4234567
C	A3	4567	TRE	MSM5117400A	I	I	A	A	TMS4117400
C	A3	4567	COC	CR4234567	I	I	I	A	HM5117400AS
C	A3	4567	ERT	TMS4117400	I	I	I	A	TC511740060
D	A4	25-755555	QDQ	HM5117400AS	I	I	I	A	LB1573456
D	A4	25-755555	ERT	TMS4117400					
D	A4	25-755555	GFD	TC511740060					
D	A4	25-755555	DOD	LB1573456					

FIGURE 7

700

TRADING PARTNER PROVIDED INFORMATION				ILC CREATION FILED FIELDS			MLC CREATION FIELDS						
CB CODE 810	IPN 815	MPR MPN 820	MPR MNAME 825	CB CODE 830	IPN 835	ILC 840	LINKS TO ILCS 845	MPR MNAME 855	MLC860	MLC LINKED FLAG 865	MPN DUP COUNTER 870	DES. ENG. % CALC. 875	UPN 880
ABC	123456789	BR456789	BOB	ABC	123456789	1	2	BOB	1	Y	2	50	1.1
ABC	123456789	CR234567	COC			1	4	COC	1	Y	2	50	1.1
ABC	123456789	LB123456	DOD			1	5	DOD	1	Y	2	50	1.1
DEF	654321	MT4C4M4A1D	YOB	DEF	654321	2	4	YOB	2		1	25	1.1
DEF	654321	MSM5117400A	TRE			2		TRE	2	Y	2	50	1.1
DEF	654321	BR456789	BOB			2			2				1.1
GHI	4567	MSV6117	TLE	GHI	4567	3		TLE	3		1	100	2.1
GHI	4567	HM5117400AS	QDQ			3		QDQ	3		1	100	2.1
JKL15	25-755555	CR234567	COC			4			4				1.1
JKL15	25-755555	MSM5117400A	TRE	JKL15	25-755555	4			4				1.1
JKL15	25-755555	TC511740060	GFD			4		GFD	4		1	25	1.1
XYZ	275-55	CVF125476	WER			5		WER	5		1	25	1.1
XYZ	275-55	VRB32454	DOJ	XYZ	275-55	5		DOJ	5		1	25	1.1
XYZ	275-55	LB123456	DOD			5			5				1.1

805

805

805

FIGURE 8



805

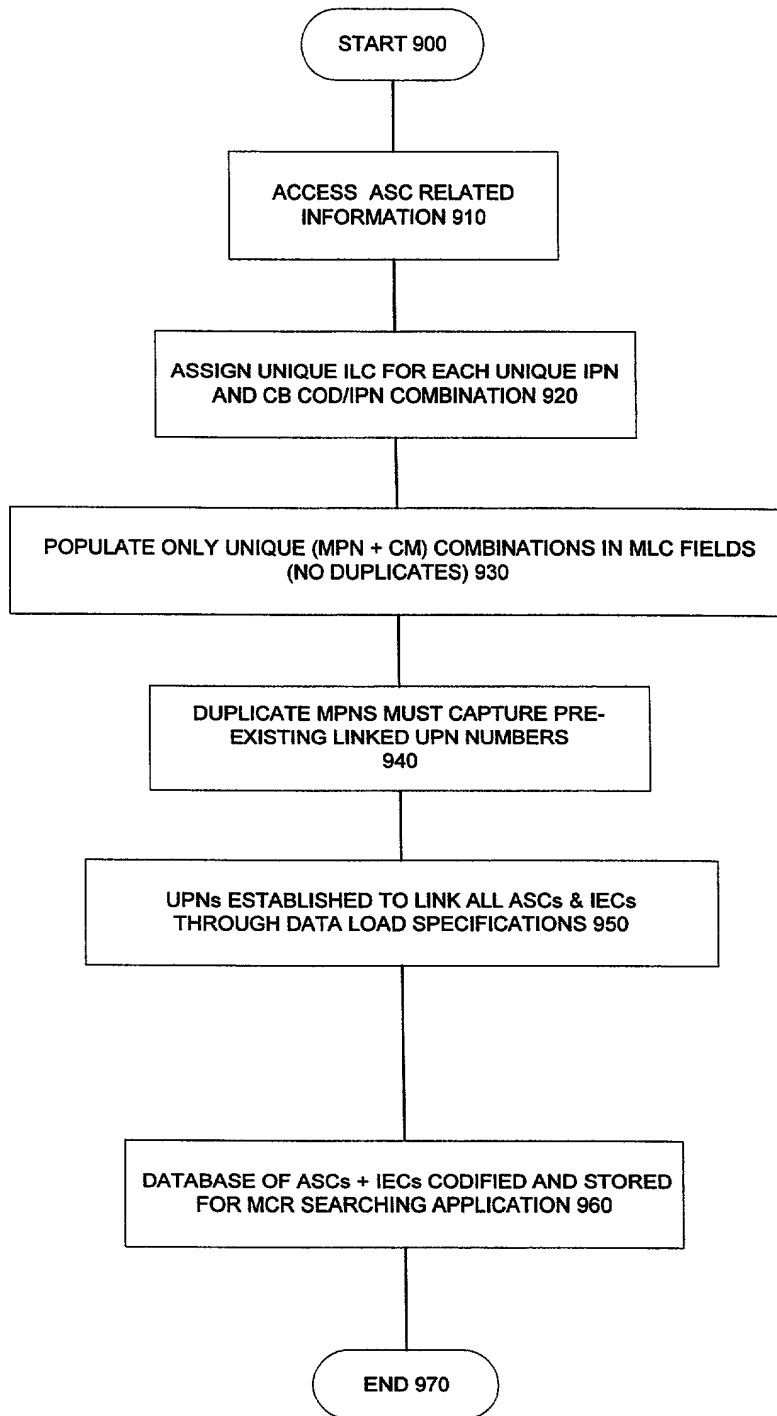


FIGURE 9

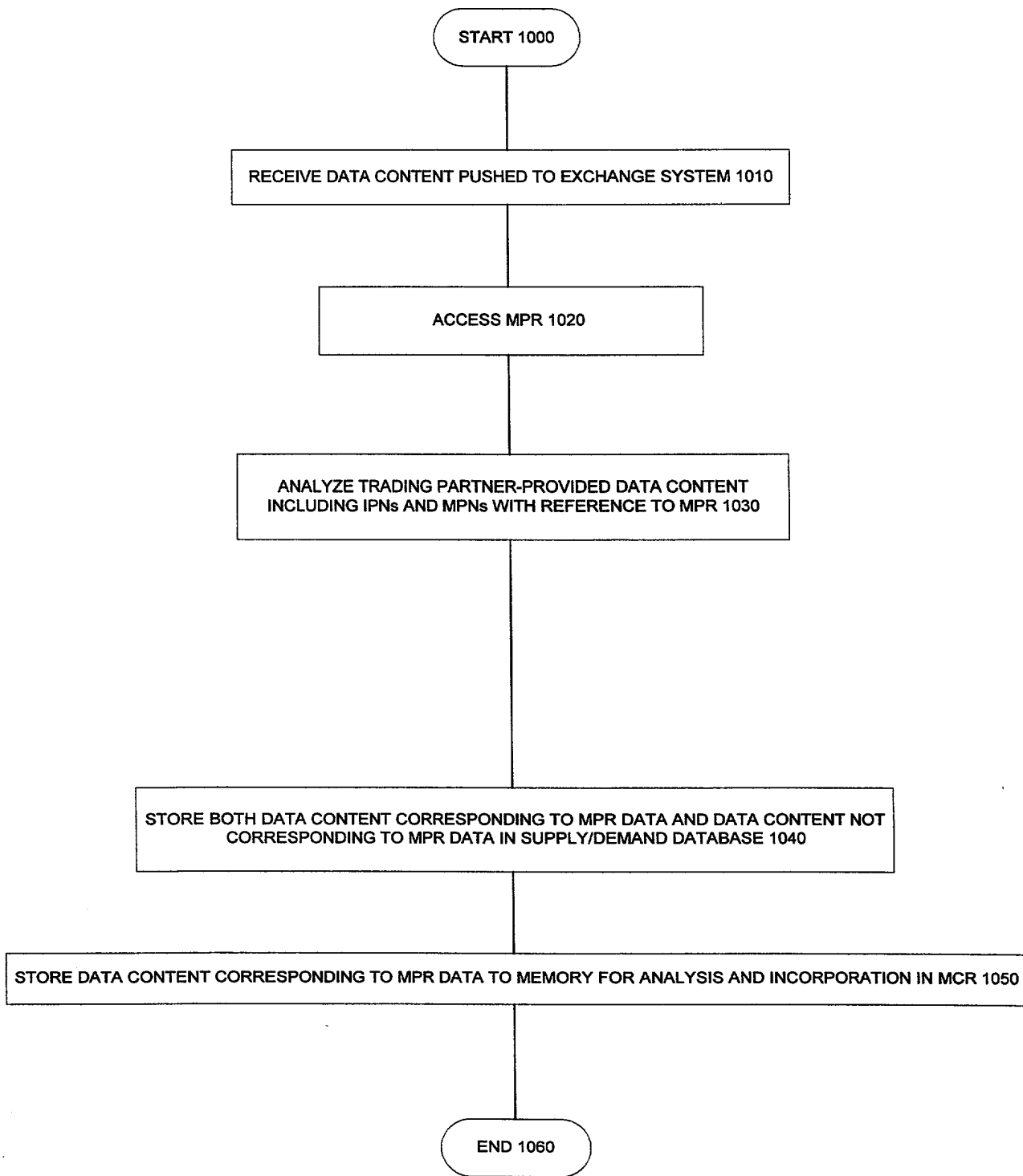


FIGURE 10